

CLAIMS

What is claimed is:

- 5 1. A multi stage mounting printed circuit board comprising:
a first printed circuit board for mounting electrical components on;
a first printed circuit board interface component coupled to said first printed
circuit board; said first printed circuit board interface component for communicatively
coupling said first printed board to a second printed board via a second printed circuit
10 board interface component; and
a plurality of printed circuit board extractors coupled to said first printed circuit
board, said plurality of printed circuit board extractors for coupling said first printed
circuit board to a pair of card guides.
- 15 2. The multi stage mounting printed circuit board of Claim 1 wherein said second
printed circuit board is mounted in said pair of card guides.
3. The multi stage mounting printed circuit board of Claim 1 wherein said
plurality of printed circuit board extractors include a mechanical advantage
20 mechanism for providing a mechanical advantage for securing said first printed circuit
board in place in said card guides.
4. The multi stage mounting printed circuit board of Claim 1 wherein said
plurality of printed circuit board extractors include a locking mechanism for locking
25 said first printed circuit board in place in said card guides.

5. The multi stage mounting printed circuit board of Claim 1 wherein one of said plurality of printed circuit board extractors include:

a pivot point for permitting said one of said plurality of printed circuit board extractors to pivot;

5 a leverage arm leverage arm for driving said printed circuit board about said pivot point; and

a latch slot for grabbing a lip on said one of said card guides.

6. The multi stage mounting printed circuit board of Claim 1 wherein said first
10 printed circuit board interface component includes a signal port for communicating signals from said first printed circuit board to said second printed circuit board.

7. A multi stage printed circuit board mounting method comprising:

15 restricting movement of a plurality of printed circuit boards within card guides ;

exerting forces associated with a mechanical advantage, wherein said forces contribute to insertion and extraction of each of said plurality of printed circuit boards separately in said single pair of card guides; and

20 locking each of said plurality of printed circuit boards in place individually in said single pair of said card guides.

8. The multi stage printed circuit board mounting method of Claim 7 wherein said printed circuit boards are mounted in a sequential cascaded manner within a single pair of said card guides.

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9. The multi stage printed circuit board mounting method of Claim 7 further comprising communicatively coupling each of said plurality of printed circuit boards to each other.

5 10. The multi stage printed circuit board mounting method of Claim 7 further comprising locking one of said plurality of printed circuit boards in place while another of said plurality of printed circuit boards is extracted.

11. A multi stage printed circuit board mounting system comprising:
10 a plurality of multi stage mounting printed circuit boards coupled together;
a back plane for receiving one of said plurality printed circuit boards; and
a plurality of card guides for guiding said plurality of printed circuit boards.

12. The multi stage printed circuit board mounting system of Claim 11 wherein said
15 plurality of multi stage mounting printed circuit boards are mounted in said plurality of card guides in a cascaded fashion.

13. The multi stage printed circuit board mounting system of Claim 11 wherein one of said plurality of multi stage mounting printed circuit boards is removable separate
20 from another one of said plurality of multi stage mounting printed circuit boards.

14. The multi stage printed circuit board mounting system of Claim 11 further comprising a coordination mechanism for permitting said plurality of multi stage mounting printed circuit boards to be inserted and removed from said plurality of card
25 guides in unison.

15. A multi stage printed circuit board mounting system of Claim 11 wherein each one of said plurality of multi stage mounting printed circuit boards includes:

a first printed circuit board interface component coupled to a first one of said plurality of multi stage mounting printed circuit boards; said first printed circuit board interface component for communicatively coupling said first one of said plurality of multi stage mounting printed circuit boards to a second one of said plurality of multi stage mounting printed circuit boards; and

a plurality of printed circuit board extractors coupled to said first one of said plurality of multi stage printed circuit boards, said plurality of printed circuit board extractors for coupling said first one of said plurality of multi stage printed circuit boards to a single pair of card guides in which a second one of said plurality of multi stage printed circuit boards is mounted.

16. The printed circuit board mounting system 15 wherein said plurality of multi stage mounting printed circuit board extractors include a mechanical advantage mechanism for providing a mechanical advantage for securing said each respective one of said plurality of multi stage mounting printed circuit boards in place in said card guides.

17. The printed circuit board mounting system of Claim 15 wherein said leverage mechanism grabs a lip on said chassis to provide force for inserting or extracting said each respective one of said plurality of multi stage mounting printed circuit boards into or out of said chassis

18. The printed circuit board mounting system Claim 15 wherein said plurality of multi stage mounting printed circuit board extractors include a locking mechanism for

locking said each respective one of said plurality of printed circuit boards in place in said card guides.

19. The printed circuit board mounting system of Claim 15 wherein each one of
5 said plurality of printed circuit board extractors includes:

a pivot point for permitting said extractor to pivot:

a leverage arm leverage arm for driving said each one of said plurality of
printed circuit board extractors about said pivot point;

a latch slot for grabbing a lip on said chassis.

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20. The printed circuit board mounting system of Claim 15 wherein each one of
said plurality of printed circuit boards can be inserted or extracted individually in a
sequential fashion.